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SEARCH REQUEST FORM

Scientific and Technical Information Center

Access DB#

126

Requester's Full Name: RITA MITRA Examiner #: 77995 Date: 4/25/02

Art Unit: 1653 Phone Number 308-0511 Serial Number: 09/556,246

Mail Box and Bldg/Room Location: 9801/CM1, Rm 9803 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Tribonectins (TRIBONECTINS)

Inventors (please provide full names): GREGORY D. JAY

Earliest Priority Filing Date: ~~0~~ April 23, 1999

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

I would request a RUSH search for Tribonectins. (because it is due 5/18)
Please DO NOT do a sequence search, do only literature search (Patent and Non-Patent). Please note only claims 1-6, 10-13, 16-29, 40 & 41 are elected.
The search should cover tribonectin which comprises one O-linked lubricating moiety, preferably the β(1-3) Gal-GalNAc moiety, wherein the tribonectin is glycosylated. Further the tribonectin comprises a fragment of megakaryocyte stimulating factor (MSF). The tribonectin is for reducing the coefficient of friction between bearing surfaces and also has a property of not increasing the viscosity of a solution.
Keywords (Additional): Osteoarthritis, lubrication of joints.

C. Chan
Rush

****

STAFF USE ONLY

Searcher: Shipponi

Searcher Phone #: 308-4199

Searcher Location:

Date Searcher Picked Up:

Date Completed: 4/30/02

Searcher Prep & Review Time:

Clerical Prep Time:

Online Time:

Type of Search

NA Sequence (#)

AA Sequence (#)

Structure (#)

Bibliographic

Litigation

Fulltext

Patent Family

Other

Vendors and cost where applicable

STN

Dialog

Questel/Orbit

Dr.Link

Lexis/Nexis

Sequence Systems

WWW/Internet

Other (specify)

PTO-1590 (1-2000)

```
=> fil reg
FILE 'REGISTRY' ENTERED AT 09:47:49 ON 30 APR 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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STRUCTURE FILE UPDATES:   28 APR 2002  HIGHEST RN 408492-65-9
DICTIONARY FILE UPDATES:  28 APR 2002  HIGHEST RN 408492-65-9

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Calculated physical property data is now available.  See HELP PROPERTIES
for more information.  See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>
=>

=> d stat que l1
L1             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TRIBONECTIN/BI


=> d ide can l1 1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2002 ACS
RN   230298-80-3  REGISTRY
CN   Megakaryocyte stimulating factor (human gene DOL54/MSF) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   1: PN: WO0064930 SEQID: 1 claimed protein
CN   GenBank U70136-derived protein GI 1572721
CN   Protein (human gene DOL54/MSF)
CN   Tribonectin (human megakaryocyte-stimulating factor gene-encoded
     fragment)
FS   PROTEIN SEQUENCE
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, TOXCENTER

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
               2 REFERENCES IN FILE CA (1967 TO DATE)
               2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE   1:  133:355208

REFERENCE   2:  131:100645


=> e Megakaryocyte stimulating factor/cn
E1          1     MEGAKARYOCYTE POTENTIATOR FRAGMENT (HUMAN CLONE PKPO27)/CN
E2          1     MEGAKARYOCYTE PROTEIN-TYROSINE PHOSPHATASE/CN
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E3          0 --> MEGAKARYOCYTE STIMULATING FACTOR/CN
E4          1     MEGAKARYOCYTE STIMULATING FACTOR (HUMAN GENE DOL54/MSF)/CN
E5          1     MEGAKARYOCYTE-ASSOCD. TYROSINE KINASE/CN
E6          1     MEGAKARYOCYTE-ASSOCD. TYROSINE MATK KINASE (HUMAN MEGAKARYOC
                  YTE CYTOPLASM)/CN
E7          1     MEGAKARYOCYTE-ASSOCIATED PROTEIN KINASE MKK1/CN
E8          1     MEGAKARYOCYTE-ASSOCIATED PROTEIN KINASE MKK2/CN
E9          1     MEGAKARYOCYTE-ASSOCIATED PROTEIN KINASE MKK3/CN
E10         1     MEGAKARYOCYTE-STIMULATING FACTOR (HUMAN LIVER)/CN
E11         1     MEGAKARYOCYTIC ACUTE LEUKEMIA PROTEIN (HUMAN GENE MAL)/CN
E12         1     MEGAKARYOCYTOPOEITIN (MOUSE CLONE 14 C-TERMINAL FRAGMENT)/CN

=> s e10
L2          1 "MEGAKARYOCYTE-STIMULATING FACTOR (HUMAN LIVER)"/CN

=> d ide can 12

L2   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2002 ACS
RN   170832-77-6  REGISTRY
CN   Megakaryocyte-stimulating factor (human liver) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   Megakaryocytopoietin (human liver)
FS   PROTEIN SEQUENCE
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
               1 REFERENCES IN FILE CA (1967 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE   1:  123:330864


=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 09:48:39 ON 30 APR 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 30 Apr 2002  VOL 136 ISS 18
FILE LAST UPDATED: 28 Apr 2002  (20020428/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
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CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=>
=>

=> d stat que l11
L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON TRIBONECTIN/BI
L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON "MEGAKARYOCYTE-STIMULATING FACTOR (HUMAN LIVER)"/CN
L3 2 SEA FILE=REGISTRY ABB=ON PLU=ON L1 OR L2
L4 SEL PLU=ON L3 1- CHEM : 9 TERMS
L5 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L4
L6 196 SEA FILE=HCAPLUS ABB=ON PLU=ON L5 OR ?TRIBONECT? OR MEGAKARYOCYTE(5A)STIMULAT?(5A)FACTOR?
L7 16 SEA FILE=REGISTRY ABB=ON PLU=ON BETA(L)(1(2W)3)(L)GAL(L)GAL(L)NAC
L8 3818 SEA FILE=HCAPLUS ABB=ON PLU=ON L7 OR BETA(L)(1(2W)3)(L)GAL(L)GAL(L)NAC OR O(W)LINK?
L11 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 AND L8

=>
=>

=> d ibib abs hitrn l11 1-3

L11 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:682193 HCAPLUS
TITLE: Homology of lubricin and superficial zone protein (SZP): Products of **megakaryocyte stimulating factor** (MSF) gene expression by human synovial fibroblasts and articular chondrocytes localized to chromosome 1q25
AUTHOR(S): Jay, Gregory D.; Tantravahi, Umadevi; Britt, Deborah E.; Barrach, Hans J.; Cha, Chung-Ja
CORPORATE SOURCE: The Department of Medicine, Section of Emergency Medicine, Rhode Island Hospital, Providence, RI, 02903, USA
SOURCE: J. Orthop. Res. (2001), 19(4), 677-687
CODEN: JOREDR; ISSN: 0736-0266
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have previously identified **megakaryocyte stimulating factor** (MSF) gene expression by synovial fibroblasts as the origin of lubricin in the synovial cavity. Lubricin is a mucinous glycoprotein responsible for the boundary lubrication of articular cartilage. MSF has a significant homol. to vitronectin and is composed of 12 exons. RNA was purified from human synovial fibroblasts and articular chondrocytes grown in vitro from tissue explants obtained from subjects without degenerative joint disease. RT-PCR was used with multiple complimentary primer pairs spanning the central mucin expressing exon 6 of the MSF gene and individual exons on both the N- and C-terminal sides of exon 6. Exons 2, 4 and 5 appear to be variably expressed by synovial fibroblasts and articular chondrocytes. Lubricating mucin, in the form of MSF, is

expressed by both chondrocytes and synovial fibroblasts in vitro. Both lubricin and superficial zone protein (SZP), a related proteoglycan, share a similar primary structure but could differ in post-translational modifications with **O-linked** oligosaccharides which are predominant in lubricin and with limited amts. chondroitin and keratan sulfate found in SZP. Since most of the MSF exons are involved in the expression of lubricating mucin, a strong homol. to vitronectin persists. It is therefore appropriate to consider that both SZP and lubricin occupy a new class of biomols. termed **tribonectins**. Screening of a human genome bacterial artificial chromsome (BAC) library with a cDNA primer pair complimentary for exon 6 identified two clones. Both clones were complimentary for chromosome 1q25 by in situ hybridization. This same locus was previously implicated in camptodactyl-arthropathy-pericarditis syndrome (CAP) by genetic mapping. It is hypothesized that CAP, a large joint arthropathy, may be assocd. with ineffective boundary lubrication provided by synovial fluid.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:220543 HCAPLUS

DOCUMENT NUMBER: 133:56549

TITLE: Lubricin is a product of **megakaryocyte stimulating factor** gene expression by human synovial fibroblasts

IDS

AUTHOR(S): Jay, Gregory D.; Britt, Deborah E.; Cha, Chung-Ja

CORPORATE SOURCE: Department of Medicine, Section of Emergency Medicine, Brown University School of Medicine, Providence, RI, USA

SOURCE: Journal of Rheumatology (2000), 27(3), 594-600
CODEN: JRHUA9; ISSN: 0315-162X

PUBLISHER: Journal of Rheumatology Publishing Co. Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Objective. The boundary lubricating ability of human synovial fluid has been attributed to lubricin, a mucinous glycoprotein. We investigated the primary structure of lubricin and its cellular origin. Methods. Lubricin was purified from pooled synovial fluid aliquots with normal lubricating activity obtained from patients with osteoarthritis. Lubricating ability of lubricin was assayed in a friction app. that oscillates natural latex against a ring of polished glass. Native and lubricin deglycosylated with O-glycosidase DS and NANase III were trypsinized and sequenced by liq. chromatog. mass spectrometry. Sequence results were compared to known structures in GenBank. Sequence data from strong matches were used in creating cDNA primers for reverse transcription-polymerase chain reaction (RT-PCR) with RNA from human synovial fibroblasts obtained intraoperatively. Results. Purified lubricin possesses an apparent mol. wt. of 280 kDa on sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE). Deglycosylation decreased the apparent mol. wt. on SDS-PAGE to 120 kDa. Sequences specific for **megakaryocyte stimulating factor** precursor (MSF) were identified in GenBank. A 100% match was obsd. for exons 6 though 9 of MSF. Lubricin/MSF reduced the coeff. of friction (m) in the latex:glass bearing from 0.131 to 0.047. MSF is 1404 amino acids in size with multiple functional domains similar to vitronectin. The reported structure of MSF contains a centrally located mucin (exon 6) with 76 repeats of the degenerate motif of KEPAPTT, the presumed site of extensive **O-linked** glycosylation. RT-PCR with primers complementary for Pro214-Ala307 in exon 6 and RNA from human synovial fibroblasts produced

the predicted product size of 280 bp. Conclusion. Lubricin is secreted by synovial fibroblasts via expression of the MSF gene. Lubricin is constructed of MSF exons 6 through 9 but the presence of other exons cannot be excluded. Lubricin/MSF is the only lubricating component in the final lubricating fraction of human synovial fluid.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:103329 HCAPLUS
DOCUMENT NUMBER: 130:309407
TITLE: Articular cartilage superficial zone protein (SZP) is homologous to **megakaryocyte stimulating factor** precursor and is a multifunctional proteoglycan with potential growth-promoting, cytoprotective, and lubricating properties in cartilage metabolism
AUTHOR(S): Flannery, Carl R.; Hughes, Clare E.; Schumacher, Barbara L.; Tudor, Debbie; Aydelotte, Margaret B.; Kuettner, Klaus E.; Caterson, Bruce
IDS
CORPORATE SOURCE: Connective Tissue Biology Laboratories, Cardiff School of Biosciences, Cardiff University, Wales, CF1 3US, UK
SOURCE: Biochem. Biophys. Res. Commun. (1999), 254(3), 535-541
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have performed cDNA sequencing and homol. analyses to elucidate the complete amino acid compn. for a superficial zone protein (SZP) from human and bovine cartilage which has previously been shown to be a proteoglycan specifically synthesized by chondrocytes located at the surface of bovine articular cartilage and also some synovial lining cells. The results of this study indicate that cartilage SZP is homologous with a glycoprotein first described as the precursor protein of a **megakaryocyte stimulating factor** (MSF). Sequence comparisons and analyses indicate that (i) the amino acid compn. of SZP is highly conserved between bovine and human species, (ii) SZP contains structural motifs at the N- and C-termini which are similar to those found in vitronectin and which may impart cell-proliferative and matrix-binding properties to the mol., and (iii) SZP contains large and small mucin-like repeat domains composed of the sequences KEPAPTTT/P (76-78 repeats) and XXTTTX (6-8 repeats), resp., which occur within a large central region of .apprx.940 amino acids. The mucin-like domains are likely to be substituted with **O-linked** oligosaccharides which would impart lubricating properties to SZP which in part accumulates at the articular cartilage-synovial fluid interface. Addnl., we have shown that interleukin-1 inhibits the biosynthesis of chondrocyte SZP, while TGF-.beta. and IGF-1 increase its biosynthesis, and that in pathol. (osteoarthritic) human articular cartilage SZP mRNA can be expressed as an alternatively spliced variant lacking exons 4 and 5 which encode a potential heparin binding domain. The occurrence of different SZP alternative splice variants and the differential expression of SZP in the presence of cytokines and growth factors suggest that SZP may play an important cytoprotective role by preventing cellular adhesion to the articular cartilage surface in normal cartilage metab. Modifications to the structure of SZP, coupled with inhibition of SZP synthesis during inflammation, may account for the attachment and invasion of pannus obsd. in inflammatory joint diseases. (c) 1999 Academic Press.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d stat que l14
L1             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TRIBONECTIN/BI
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "MEGAKARYOCYTE-STIMULATING
                 FACTOR (HUMAN LIVER)"/CN
L3             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L1 OR L2
L4               SEL  PLU=ON  L3 1- CHEM :        9 TERMS
L5             3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4
L6           196 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 OR ?TRIBONECT? OR MEGAKARYO
                 CYTE(5A)STIMULAT?(5A)FACTOR?
L7            16 SEA FILE=REGISTRY ABB=ON  PLU=ON  BETA(L)(1(2W)3)(L)GAL(L)GAL(L
                 )NAC
L8          3818 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7 OR BETA(L)(1(2W)3)(L)GAL(L)
                 GAL(L)NAC OR O(W)LINK?
L9          2056 SEA FILE=REGISTRY ABB=ON  PLU=ON  GLYCOSY?
L10        58128 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 OR ?GLYCOSY?
L11            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 AND L8
L12          914 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 OR MSF
L14            4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L12 AND L10) NOT L11


=> d ibib abs hitrn l14 1-4

L14  ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2001:83563  HCAPLUS
DOCUMENT NUMBER:          135:283757
TITLE:                    Isolation, characterization and mapping of the mouse
                          and human PRG4 (proteoglycan 4) genes
AUTHOR(S):                Ikegawa, S.; Sano, M.; Koshizuka, Y.; Nakamura, Y.
CORPORATE SOURCE:         Laboratory of Genome Medicine, Human Genome Center,
                          Institute of Medical Science, The University of Tokyo,
                          Tokyo, 108-8639, Japan
SOURCE:                   Cytogenetics and Cell Genetics (2000), 90(3-4),
                          291-297
                          CODEN: CGCGBR; ISSN: 0301-0171
PUBLISHER:                S. Karger AG
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB    PRG4 (proteoglycan 4) has been identified as megakaryocyte
      stimulating factor and articular superficial zone
      protein.  PRG4 has characteristic motifs including somatomedin B and
      hemopexin domains, a chondroitin sulfate-attachment site and mucin-like
      repeats.  During a screen of genes implicated in ectopic ossification, we
      found a novel mouse gene highly homologous to human and bovine PRG4 genes.
      Here, we report isolation, characterization and mapping of the gene, Prg4
      together with characterization of its human ortholog.  Prg4 cDNA was 3,320
      bp long, encoding a 1,045 amino-acid protein.  Human and mouse PRG4 genes
      each consisting of 12 exons spanned 18 and 16 kb, resp.  Characteristic
      motifs were conserved across species; however, the mucin-like repeat
      regions were highly diverse in length between species with a tendency that
      larger animals had longer repeats.  Expression of human and mouse PRG4
      genes was similar and found not only in cartilage, but also in liver,
      heart, lung, and bone.  Expression of the mouse gene increased with
      progression of ectopic ossification.  Multiple tissue-specific splicing
      variants lacking some of the motifs were found in both human and mouse.
      Although a specific role in the articular joint has previously been
      reported, the presence of multi-functional motifs as well as unique
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expression and alternative splicing patterns suggest that PRG4 functions in several distinctive biol. process including regulation of ossification.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:463782 HCAPLUS
DOCUMENT NUMBER: 117:63782
TITLE: Human **megakaryocyte** colony-**stimulating factor** (hMeg-CSF) protein and methods
INVENTOR(S): Murphy, Martin J.; Parchment, Ralph E.; Erickson-Miller, Connie L.; Dai, Wei; Zhang, Zhao Geng; Liotta, Lance A.; Krutzsch, Henry
PATENT ASSIGNEE(S): Hipple Cancer Research Center, USA
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9200319	A1	19920109	WO 1991-US4698	19910702
W: AU, CA, FI, JP, KR, NO				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
CA 2086248	AA	19920103	CA 1991-2086248	19910702
AU 9182155	A1	19920123	AU 1991-82155	19910702
EP 540575	A1	19930512	EP 1991-913186	19910702
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 06502621	T2	19940324	JP 1991-512921	19910702
NO 9204995	A	19930301	NO 1992-4995	19921223
PRIORITY APPLN. INFO.:			US 1990-547573	19900702
			WO 1991-US4698	19910702

OTHER SOURCE(S): MARPAT 117:63782
AB The hMeg-CSF is purified from urine of aplastic anemia patients. The protein has a pI of .apprx.7.2-7.4 and a mol. wt. of .apprx.29,000-34,000 Da (by SDS-PAGE) when in a **glycosylated** and sialylated form. The hMeg-CSF induces the formation of megakaryocyte colony-forming units in a murine fibrin clot assay in vitro and regulates megakaryocytopoiesis and blood platelet prodn. in vivo. Pharmaceutical compns. contg. hMeg-CSF and their use in treating a disease related to the prodn. of platelets are claimed. A streamlined isolation procedure involved concg. aplastic anemia urine dissolved in 0.8M urea on a 106 mol. wt. cut-off membrane, concg. the flow-through on a 105-Da cut-off membrane and then a 104-Da cut-off membrane, and further purifying the 104-105 fraction by weak cation exchange HPLC using a polyaspartic acid WCX column. The N-terminal amino acid sequence was detd. to be X-Asp-Pro-Val-Glu-Ser-Pro-Val-Pro-Y, where X and Y are undetd. residues. Mol. cloning and polymerase chain reaction amplification of hMeg-CSF cDNA and probes and primers for such are described (no data).

L14 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:205261 HCAPLUS
DOCUMENT NUMBER: 114:205261
TITLE: In vivo effect of human granulocyte-macrophage colony-stimulating factor on megakaryocytopoiesis
AUTHOR(S): Aglietta, Massimo; Monzeglio, Clara; Sanavio,

Fiorella; Apra, Franco; Morelli, Silvia; Stacchini, Alessandra; Piacibello, Wanda; Bussolino, Federico; Bagnara, GianPaolo; et al.
CORPORATE SOURCE: Dip. Sci. Biomed. Oncol. Um., Univ. Torino, Turin, 10126, Italy
SOURCE: Blood (1991), 77(6), 1191-4
CODEN: BLOOAW; ISSN: 0006-4971
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effect of granulocyte-macrophage colony-stimulating factor (GM-CSF) on megakaryocytopoiesis and platelet prodn. was investigated in patients with normal hematopoiesis. Three findings indicated that GM-CSF plays a role in megakaryocytopoiesis. During treatment with GM-CSF (recombinant mammalian, **glycosylated**; 5.5 .mu.g protein/kg/d, s.c. for 3 days) the percentage of megakaryocyte progenitors (megakaryocyte colony forming unit [CFU-Mk]) in S phase (evaluated by the suicide technique with high 3H-Tdr doses) increased from 31% to 88%; and maturation profile of megakaryocytes was modified, with a relative increase in more immature stage I-III forms. Moreover, by autoradiog. (after incubation of marrow cells with 125-labeled GM-CSF) specific GM-CSF receptors were detectable on megakaryocytes. Nevertheless, the proliferative stimulus induced on the progenitors was not accompanied by enhanced platelet prodn. (by contrast with the marked granulomonocytosis). It may be suggested that other cytokines are involved in the regulation of the intermediate and terminal stages of megakaryocytopoiesis in vivo and that their intervention is an essential prerequisite to turn the GM-CSF-induced proliferative stimulus into enhanced platelet prodn.

L14 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:198687 HCAPLUS
DOCUMENT NUMBER: 102:198687
TITLE: Purification and partial characterization of a **megakaryocyte** colony-**stimulating factor** from human plasma
AUTHOR(S): Hoffman, Ronald; Yang, Hsin Hsin; Bruno, Edward; Straneva, John E.
CORPORATE SOURCE: Sch. Med., Indiana Univ., Indianapolis, IN, 46223, USA
SOURCE: J. Clin. Invest. (1985), 75(4), 1174-82
CODEN: JCINAO; ISSN: 0021-9738
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Human plasma obtained from patients with hypomegakaryocytic thrombocytopenia contains a factor that promotes megakaryocyte colony formation by normal human marrow cells. This **megakaryocyte** colony-**stimulating factor** [62683-29-8] was purified from such a plasma specimen. A 4-step purifn. scheme which included (NH4)2SO4 pptn., diethylaminoethyl-Sepharose chromatog., affinity chromatog. on wheat germ lectin-Sepharose 6MB, and reverse-phase HPLC resulted in a recovery of 16.6% of the initial biol. activity and an increase in specific activity by 3489-fold. The purified protein produced a single band on SDS-polyacrylamide gel electrophoresis. Purified megakarocyte colony-**stimulation factor** was capable of promoting **megakaryocyte** colony formation at a concn. of 7.6 .times. 10-8 M. **Megakaryocyte** colony-**stimulating factor** was a glycoprotein and had an apparent 46,000 mol. wt. **Deglycosylation** of **megakaryocyte** colony-**stimulating factor** by treatment with trifluoromethanesulfonate resulted in the loss of its ability to promote megakaryocyte colony formations. **Megakaryocyte** colony-

stimulating factor appears to be an important regulator of in vitro human megakaryocytopoiesis at the level of the colony-forming unit megakaryocyte and may be of importance physiol.

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=> d stat que
L1            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TRIBONECTIN/BI
L2            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "MEGAKARYOCYTE-STIMULATING
                FACTOR (HUMAN LIVER)"/CN
L3            2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L1 OR L2
L4              SEL  PLU=ON  L3 1- CHEM :       9 TERMS
L5            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4
L6          196 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 OR ?TRIBONECT? OR MEGAKARYO
                CYTE(5A)STIMULAT?(5A)FACTOR?
L7           16 SEA FILE=REGISTRY ABB=ON  PLU=ON  BETA(L)(1(2W)3)(L)GAL(L)GAL(L
                )NAC
L8         3818 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7 OR BETA(L)(1(2W)3)(L)GAL(L)
                GAL(L)NAC OR O(W)LINK?
L9         2056 SEA FILE=REGISTRY ABB=ON  PLU=ON  GLYCOSY?
L10       58128 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 OR ?GLYCOSY?
L11           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 AND L8
L12         914 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 OR MSF
L14           4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L12 AND L10) NOT L11
L19          95 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L12(L)(?MEMBRAN? OR ?FOAM?
                OR GEL OR ?FIBER?)) NOT (L11 OR L14)
L20          12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND (ADHES? OR TISSUE?)


=> d ibib abs hitrn l20 1-12

L20  ANSWER 1 OF 12  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:        2002:235135  HCAPLUS
TITLE:                   Study on detection of telomerase activity
AUTHOR(S):               Zhang, Liming; Yin, Muquan; He, Qian; Chen, Zhilong;
                         Chen, Tiehe; Bi, Jie
CORPORATE SOURCE:        Department of Hygienic Toxicology, Basic Medicine
                         Division, Second Military Medical University,
                         Shanghai, 200433, Peop. Rep. China
SOURCE:                  Dier Junyi Daxue Xuebao (2002), 23(1), 102-103
                         CODEN: DJXUE5; ISSN: 0258-879X
PUBLISHER:               Dier Junyi Daxue Xuebao Bianjibu
DOCUMENT TYPE:           Journal
LANGUAGE:                Chinese
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AB The liq. scintillation counting (LSC) method for detecting telomerase activity was presented. Samples from hepatocellular carcinoma (HCC), normal liver **tissues**, breast neoplasm, and nasopharyngeal carcinoma were lyzed with lysis buffer and extd. to obtain S100 with protein content of 10 .mu.g, amplified by PCR with the ext. as template in the presence of 3H-dTTP and specific primer, adsorbed on Whatman DE81 **membrane**, and detected by LSC method. The results detected by LSC method were compared with those by Ag-stained telomeric repeat amplification protocol (TRAP). The cpm value of HCC samples was significantly higher than that of control, normal liver **tissue**, and tumor-adjacent **tissues**, while there was no significant difference among normal liver **tissues**, control, and tumor-adjacent **tissues**. The cpm value of HCC samples was significantly higher than that of samples amplified without specific primer and also higher than that of samples amplified in the presence of RNase-treated S100. The cpm value of breast neoplasm, nasopharyngeal

carcinoma, and breast neoplasm cell line **MSF**-7 was all significantly higher than that of normal control (all P <0.01). The results detected by TRAP were the same as those by LSC method. The results showed that LSC method may be used for detection of telomerase activity.

L20 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:147855 HCAPLUS
DOCUMENT NUMBER: 134:321780
TITLE: Bioaccumulation of polychlorinated biphenyls (PCBs) and dichlorodiphenylethane (DDE) methyl sulfones in **tissues** of seal and dolphin morbillivirus epizootic victims
AUTHOR(S): Troisi, G. M.; Haraguchi, K.; Kaydoo, D. S.; Nyman, M.; Aguilar, A.; Borrell, A.; Siebert, U.; Mason, C. F.
CORPORATE SOURCE: Wildlife and Human Toxicology Unit, School of Life Sciences, Kingston University, Surrey, KT1 2EE, UK
SOURCE: Journal of Toxicology and Environmental Health, Part A (2001), 62(1), 1-8
CODEN: JTEHF8; ISSN: 1528-7394
PUBLISHER: Taylor & Francis
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polychlorinated biphenyl (PCB) and dichlorodiphenylethane (DDE) Me sulfone (**MSF**) metabolites possess high affinities for binding two homologous 16,000 Da homodimeric receptor proteins in the lung (Clara cell secretory protein, CCSP) and the uterus (uteroglobin, UG), leading to selective bioaccumulation of **MSFs** in these **tissues**. As marine mammals are highly exposed to organochlorines, concns. of PCBs, PCB **MSFs**, DDT, and DDE **MSF** were analyzed in blubber, lung, and uterus samples from harbor seal (Phoca vitulina) and striped dolphin (Stenella coeruleoalba) morbillivirus epizootic victims to investigate uterine and lung **MSF** accumulation. Mean uterus concns. of PCB **MSFs** and DDE **MSF** in harbor seals were 0.61 and 0.04 .mu.g/g lipid wt. and in striped dolphins 0.05 and 0.01 .mu.g/g lipid wt. Mean lung concns. of PCB **MSFs** and DDE **MSF** in harbor seals were 0.96 and 0.02 .mu.g/g lipid wt. and in striped dolphins 0.16 and 0.01 .mu.g/g lipid wt. To ascertain whether uterine and lung bioaccumulation of **MSFs** is possible due to the presence of CCSP and UG in seals, CCSP and UG proteins in uterine flushings and in uterine and lung and epithelial **tissue** from Baltic gray and ringed seals were characterized using **gel** electrophoresis and Western blotting techniques. UG- and CCSP-like proteins with mol. wts. of 16,000 Da were resolved in all samples. This is the first demonstration of this protein in any marine mammalian species. The toxicol. implications of **MSF** binding with UG and CCSP in marine mammals are discussed.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:772661 HCAPLUS
DOCUMENT NUMBER: 133:355208
TITLE: Tribonectins for treatment of arthritic or injured joints
INVENTOR(S): Jay, Gregory D.
PATENT ASSIGNEE(S): Rhode Island Hospital, a Lifespan Partner, USA
SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000064930	A2	20001102	WO 2000-US10953	20000424
WO 2000064930	A3	20010125		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1173567	A2	20020123	EP 2000-926303	20000424

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: US 1999-298970 A2 19990423
WO 2000-US10953 W 20000424

AB The invention features a tribonectin and a method of tribosupplementation carried out by administering tribonectins directly to an injured or arthritic joint.

L20 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:430992 HCAPLUS
DOCUMENT NUMBER: 123:187371
TITLE: GPC clean-up for the analysis of PCBs, PCDDs and their metabolites: a comparison of different mobile phases
AUTHOR(S): Rozemeijer, Marcellino J. C.; Jimenez, Begona; Adrichem, Marco A.; Voogt, Pim De; Olie, Kees
CORPORATE SOURCE: Department Environmental and Toxicological Chemistry, University Amsterdam, Amsterdam, 1018, Neth.
SOURCE: Organohalogen Compd. (1994), 19(Dioxin '94), 183-6
CODEN: ORCOEP
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Clean-up properties of a **gel** permeation chromatog. system (GPC) were studied. A 25 cm long column filled with Bio-Beads SX-3 was used with either acetone or cyclohexane: dichloromethane (CH:DCM, 1:1) as the mobile phase. The elution profiles of mesenteric adipose **tissue** of a cow, 2,2',6,6'-tetrachloro-4,4'-dimethoxy-biphenyl (TCB-(OMe)2), and 1,2,3,4-tetrachloro dibenzo-p-dioxin (1,2,3,4-TCDD) were detd. in the case of acetone. The elution profiles of adipose **tissue**, TCB-(OMe)2, TCDD, 2,2',4,5'-tetrachlorobiphenyl (PCB) and 3-SO2Me-2,2'4,5,5',6'-hexachlorobiphenyl (**MSF**-HxCB) were detd. in the case of CH:DCM. The mixt. CH:DCM yielded the best sepn. between fat and the studied compds., also when compared to hexane:dichloromethane (H:DCM, 1:1).

L20 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:549461 HCAPLUS
DOCUMENT NUMBER: 117:149461
TITLE: Novel megakaryocyte amplifier protein and its manufacture with human lung cells
INVENTOR(S): Kondo, Shuhei; Ogawa, Kohei

PATENT ASSIGNEE(S): Asahi Kasei Kogyo K. K., Japan
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9212177	A1	19920723	WO 1991-JP1803	19911227
W: AU, CA, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
AU 9191077	A1	19920817	AU 1991-91077	19911227
AU 646530	B2	19940224		
EP 517925	A1	19921216	EP 1992-901913	19911227
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 05247095	A2	19930924	JP 1991-358187	19911227

PRIORITY APPLN. INFO.: JP 1990-415440 19901228
WO 1991-JP1803 19911227

AB A novel megakaryocyte amplifier protein is purified from a **tissue** culture of normal diploid human lung cells. This protein exhibits a mol. wt. of 25,000 detd. by **gel** filtration and a pI 8.+-.1. It can be distinguished from human erythropoietin, interferons-1.alpha. and -1.beta., and interleukins 6 and 7 by neutralizing antibodies. The amplifier protein potentiates the **megakaryocyte-stimulating** activity of other **factors** such as interleukin 3 and increases the peripheral platelets while it does not show the **megakaryocyte** colony-**stimulating factor** activity per se. The activity of the amplifier protein is approx. 2-fold higher than that of the recombinant human interleukin 11. A pharmaceutical compn. contg. the amplifier protein and other interleukins, colony-stimulating factors, etc. is also described.

L20 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:82263 HCAPLUS
DOCUMENT NUMBER: 116:82263
TITLE: Megakaryocyte colony-stimulating factor and its production by culture of lung large-cell carcinoma cells
INVENTOR(S): Matsunaga, Keita; Kuriya, Shinichiro; Ohsawa, Fukuichi; Ogata, Kiyoyuki; Makabe, Osamu
PATENT ASSIGNEE(S): Meiji Seika Kaisha, Ltd., Japan
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9118925	A1	19911212	WO 1991-JP739	19910531
W: AU, CA, FI, JP, KR, NO, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
CA 2084074	AA	19911201	CA 1991-2084074	19910531
AU 9179729	A1	19911231	AU 1991-79729	19910531
EP 672684	A1	19950920	EP 1991-910163	19910531
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				

NO 9204589 A 19930118 NO 1992-4589 19921127
PRIORITY APPLN. INFO.: JP 1990-139809 19900531
WO 1991-JP739 19910531
OTHER SOURCE(S): MARPAT 116:82263
AB Human lung large-cell carcinoma cells are cultured to produce megakaryocyte colony-stimulating favor having mol. wt. .apprx.23,000 (**gel** electrophoresis), pI 4.5-5.5, max absorbance at 280 nm) sp. activity 3 .times. 107 CFU, and partial amino acid sequence Tyr-Glu-Asp-Clu-X-Pro (X = unidentified amino acid residue). Thus, the human pulmonary carcinoma cell MC-1 was cultured in the serum-free RPMI-HPTS medium contg. transferrin, selenous acid, Ha pyruvate and HEPES buffer at 37.degree. under 5% CO2 for 4 days. The supernatant continued 640 CFU **megakaryocyte** colony-**stimulating factor**/mL. The colony-stimulating factor had an activity of forming a megakaryocyte colony from human or mouse myelloid cells in vitro and an activity of increasing the no. of megakaryocyte precursor cells and megakaryocytes in vivo.

L20 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:39788 HCAPLUS
DOCUMENT NUMBER: 116:39788
TITLE: Preparation of megakaryocyte-stimulating factor with human leukemic cells
INVENTOR(S): Kawakita, Makoto; Arima, Naomichi
PATENT ASSIGNEE(S): Mochida Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03251189	A2	19911108	JP 1990-48937	19900228

AB A **megakaryocyte-stimulating factor** (I) is prepd. by cultivating the human leukemic cells-derived K3T cells. I can be used for prepn. of therapeutics for megakaryocyte-related syndromes such as thrombopenia. I was recovered from the culture supernatant and purified by chromatog. I had a mol. wt. 42,000 (by **gel** filtration) and pI 6.6. Biol. activities of I were also obsd. on the cultured human CMK cells.

L20 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:39787 HCAPLUS
DOCUMENT NUMBER: 116:39787
TITLE: Preparation of megakaryocyte-stimulating factor with human leukemic cells
INVENTOR(S): Kawakita, Makoto; Arima, Naomichi
PATENT ASSIGNEE(S): Mochida Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

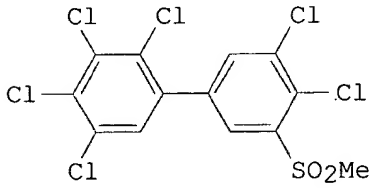
JP 03251190 A2 19911108 JP 1990-48938 19900228

AB A **megakaryocyte-stimulating factor** (I) is prepd. by cultivating the human leukemic cells-derived K3T cells. I can be used for prepn. of therapeutics for megakaryocyte-related syndromes such as thrombopenia. I was recovered from the culture supernatant and purified by chromatog. I had a mol. wt. 42,000 (by **gel** filtration) and pI 5.8. Biol. activities of I on the cultured human CMK cells were shown.

L20 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:193826 HCAPLUS
DOCUMENT NUMBER: 112:193826
TITLE: Protein factors which regulate cell motility
AUTHOR(S): Rosen, Eliot M.; Goldberg, Itzhak D.
CORPORATE SOURCE: Sch. Med., Yale Univ., New Haven, CT, 06510, USA
SOURCE: In Vitro Cell. Dev. Biol. (1989), 25(12), 1079-87
CODEN: ICDBEO; ISSN: 0883-8364
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 97 refs. on recent studies demonstrating a novel group of motility-stimulating proteins. Examples included are: (1) scatter factor (SF), a mesenchymal cell-derived protein which causes contiguous sheets of epithelium to sep. into individual cells and stimulates the migration of epithelial as well as vascular endothelial cells; (2) autocrine motility factor (AMF), a tumor cell-derived protein which stimulates migration of the producer cells; and (3) migration-stimulating factor (**MSF**), a protein produced by fetal and cancer patient fibroblasts which stimulates penetration of three-dimensional collagen **gels** by non-producing adult fibroblasts. The physiol. functions of SF, AMF, and **MSF** have not been established, but available data suggest that they may be involved in fetal development and/or **tissue** repair.

L20 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:545229 HCAPLUS
DOCUMENT NUMBER: 101:145229
TITLE: Analytical method for minute amounts of polychlorinated biphenyl methylsulfones from fatty **tissue**
AUTHOR(S): Haraguchi, Koichi; Kuroki, Hiroaki; Masuda, Yoshito
CORPORATE SOURCE: Daiichi Coll. Pharm. Sci., Fukuoka, 815, Japan
SOURCE: J. Anal. Toxicol. (1984), 8(4), 177-81
CODEN: JATOD3; ISSN: 0146-4760
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



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AB Five methylsulfone (**MSF**) derivs. (2,5-dichloro-1,1'-biphenyl 4-methylsulfone [92137-99-0], 2,5,3'-trichloro-1,1'-biphenyl

4-methylsulfone [66640-53-7], 2,5,2',5'-tetrachloro-1,1'-biphenyl 4-methylsulfone [60640-55-3], 2,5,2',4',5'-pentachloro-1,1'-biphenyl 4-methylsulfone [66640-61-7], and 3,4,2',3',4',5'-hexachloro-1,1'-biphenyl 5-methylsulfone (I) [92138-00-6]) of polychlorinated biphenyls (PCBs) contg. 2-6 Cl atoms were synthesized and fortified in bovine fat. The samples were sapond. in NaOH-EtOH soln., extd. with hexane after diln. with a double vol. of H2O, and chromatographed on a column of silica **gel** eluting successively with hexane and 5% and 50% Et2O in hexane. The 3rd eluate was partitioned between hexane and concd. H2SO4 and back-extd. with hexane from 70% H2SO4 soln. The ext. was further partitioned between hexane and 90% acetonitrile and back-extd. with hexane from 20% acetonitrile soln. The final ext. was analyzed by gas chromatog. with electron-capture detection. Recovery of the **MSF**-PCBs from the bovine fat by the clean-up procedure was >93% in most cases. The method can det. 5 and 100 ng each of the **MSF**-PCBs in a 5-g fatty sample with .apprx.10 and 6% precision, resp.

L20 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:15349 HCAPLUS
DOCUMENT NUMBER: 98:15349
TITLE: Enhanced stimulation of antimicrobial systems in human granulocytes interacting with E. coli possessing mannose-sensitive fimbrial **adhesin** and treated with antifimbriae
AUTHOR(S): Perry, A.; Ofek, I.; Silverblatt, F. J.
CORPORATE SOURCE: Dep. Hum. Microbiol., Tel-Aviv Univ., Tel-Aviv, Israel
SOURCE: Lab. Med.: Adv. Pathol. (Anat. Clin.), Proc. Trienn. World Congr. World Assoc. Soc. Pathol. (Anat. Clin.) (1982), Meeting Date 1981, Volume 1, 43-6. Editor(s): Levy, Emmanuel. Pergamon: Oxford, UK.
CODEN: 48XEAX
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Protein iodination was assayed in human granulocytes (G) following interaction of the cells with mannose-specific type 1 fimbriated (**MSF**+) and nonfimbriated (**MSF**-) phenotypes of Escherichia coli pretreated with various amts. of anti-E. coli and anti-fimbrial antibodies (AF). The **MSF**+ phenotype stimulated protein iodination in G and possessed potent **MSF** activity while the **MSF**- phenotype lacked any of these activities. **MSF**+ pretreated with moderate concns. of antibodies, however, showed up to 15-fold increase in G stimulation as compared to G stimulation by non-antibody treated **MSF**+ or by bacteria treated with high concns. of antibodies which were sufficient to completely block **MSF** activity. This marked increase in stimulation of G was dependent on the antibody concn.; markedly reduced by methyl-.alpha.-L-mannoside; caused by IgG as well as by F(ab')2 deriv. of AF; and caused by anti-E. coli unabsorbed or absorbed with **MSF**- phenotype but not by antibodies absorbed with purified fimbriae. Apparently, the obsd. enhanced stimulation of G is mediated by **MSF**-AF complexes on bacterial surfaces via the **MSF** rather than the Fc receptors on G **membrane**.

L20 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1980:618172 HCAPLUS
DOCUMENT NUMBER: 93:218172
TITLE: Aminergic systems in pulmonate gastropod molluscs. III. Microspectrofluorometric characterization of the monoamines in the reproductive system

AUTHOR(S): Hartwig, H. G.; Brisson, P.; Lyncker, I.; Collin, J. P.
CORPORATE SOURCE: Zent. Anat. Cytobiol., Justus-Liebig-Univ., Giessen, Fed. Rep. Ger.
SOURCE: Cell Tissue Res. (1980), 210(2), 223-34
CODEN: CTSRCS; ISSN: 0302-766X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Histochem. fluorescence (Falck-Hillarp) and microspectrofluorometric (**MSF**) methods were used to characterize different types of catecholamine-contg. cellular elements located in the reproductive systems of freshwater snails (Bulinus truncatus, Planorbarius corneus) and land snails (Archachatina marginata, Helix aspersa). Transverse sections through the genital tract displayed a common structural pattern of tubular differentiations: (1) an internal epithelium bordering the lumen and contg. variable nos. of monoaminergic cells; (2) an enveloping sheath of connective and muscular **tissue** contg. fine nerve **fibers** in the form of a network that exhibited a variable degree of d. **MSF** detns. showed that the H2CO-induced fluorophores of the intraepithelial aminergic cells belonged to the following classes: (1) the DOPA/dopamine group in the duct of the albumen gland of B. truncatus and the carrefour of A. marginata; and (2) the norepinephrine/epinephrine group in the duct of the albumen gland and in the oviduct sac of P. corneus. In the reproductive systems of B. truncatus and P. corneus (duct of the albumen gland, oviduct sac, vagina), A. marginata and H. aspersa (duct of the fertilization pocket, origin of the receptaculum seminis, carrefour), the **MSF** anal. revealed norepinephrine/epinephrine-contg. intramural nerve **fibers**. On the other hand, the small neurons in the vagina of B. truncatus belonged to the DOPA/dopamine group.

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TO SEE WHICH COMMANDS WERE EXECUTED.

=> select hit rn l20 1-12
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